Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended): A system ~~for detecting the locations and/or motions of wireless network devices communicating within a wireless network~~, comprising:

~~a first network device configured for wirelessly communicating beacon frames which include signal strength information with at least two other network devices; and~~

~~means for detecting the distances between said first network device and the other network devices in response to signal strength information contained within communication frames to determine the positions of wireless network devices and/or the motions of one network device in relation to the other network devices.~~

a plurality of communication devices;

said communication devices configured for communication over a wireless network;

said communication devices configured for communicating signal strength information within communication frames;

said plurality of communication devices comprising a first communication device, a second communication device, and a third communication device;

said first communication device comprising a detector,

said detector configured for determining relative distance between said first communication device and said second and third communication devices in response to receiving signal strength information from said second and third communication devices;

wherein said detector is configured to determine said relative distance between said first communication device and said second and third communication devices to

determine motion of said first communication device relative to said second and third communication devices; and

wherein said detector is configured for generating motion information for input to a user interface.

2. (currently amended): A system as recited in claim 1, wherein said detector ~~distance-detecting-means~~ comprises:

a computer ~~configured-for-communicating-with-other-wireless-network-devices~~; and

programming, executable ~~configured-for-execution~~ on said computer, configured for,

communicating wirelessly between said first communication device and said second and third communication devices according to a layered protocol ~~with-other-networks~~,

supporting a media access control layer ~~(MAC)~~ within said layered protocol,

detecting ~~the-distances~~ distance between said first ~~network~~ communication device and said second and third ~~the-other~~ communication ~~network~~ devices in response to the signal strength information ~~contained-within-communication-frames~~, and

determining ~~the-positions-of-wireless-network-devices-and/or-the-motions~~ motion of ~~one-network~~ said first communication device in relation to said second and third ~~the-other-network~~ communication devices in response to detected distance between said first communication device and said second and third communication devices.

3. (currently amended): A system as recited in claim 2, wherein said programming is further configured for:

generating distance vectors between ~~a plurality of wireless network devices, including~~ said first communication ~~network~~ device and said second and third communication devices based on the signal strength information ~~contained within the communication frames~~.

4. (currently amended): A system as recited in claim 1, wherein said detector ~~means for detecting the distances~~ comprises:

~~a motion monitor module configured for monitoring proximity motion of a plurality of wireless network devices in the wireless network system;~~

a signal strength estimation ~~monitoring~~ module configured for estimating ~~monitoring the~~ signal strength between said first communication device and said second and third communication ~~communicating network~~ devices ~~within said plurality of wireless network devices~~;

a vector coordinates generation module configured for generating distance vectors based on estimated signal strengths from said signal strength estimation module ~~between said plurality of devices~~; and

a proximity motion sensor module for detecting [[the]] relative motion of said first communication device and said second and third communication devices based on distance vectors from said vector coordinates generation module ~~one or more of said plurality of wireless network devices communicating on the wireless network~~.

5. (currently amended): A system ~~for detecting two or three dimensional motion of wireless network devices communicating within a wireless network~~, comprising:

a plurality of wireless network communication devices;

said plurality of wireless network communication devices comprising a first network communication device ~~configured for wirelessly communicating beacon frames which include signal strength information with~~, a second network communication device and a third network communication device ~~at least two other network devices~~;

said first network communication device configured for wirelessly communicating beacon frames which include signal strength information;

a motion monitor module, within said first network communication device, configured for monitoring proximity motion of said first network communication device and said second and third network communication devices ~~within the plurality of at least three wireless network devices in the wireless network~~;

a signal strength estimation ~~monitoring~~ module, within said first network communication device, configured for estimating ~~monitoring the~~ signal strength information among ~~between communicating network devices within said plurality of wireless network devices~~ said first network communication device and said second and third network communication devices;

a vector coordinates generation module, within said first network communication device, configured for generating distance vectors based on signal ~~strengths between said plurality of devices~~ strength estimations from said signal strength estimation module; and

a proximity motion sensor module, within said first network communication device, configured for detecting [[the]] relative motion of said first network communication device and said second and third network communication devices based on distance vectors from said vector coordinates generation module ~~one or more of said plurality of wireless network devices communicating on the wireless network~~;

wherein said proximity motion sensor module is configured for generating motion information for use within a user interface.

6. (currently amended): A system as recited in claim [[4]] 5, further comprising:

means for recalibrating coordinate and position information of a fourth network communication device when said fourth network communication device enters or leaves the network on which said plurality of network communication devices are operating ~~wherein said vector coordinates generation module is configured for calculating~~

~~distance vectors between a plurality of wireless network devices based on signal strength information contained within the communication frames~~.

7. (currently amended): A system as recited in claim [[6]] 5, wherein said vector coordinates generation module is configured for calculating a relative two-dimensional or three-dimensional coordinate representation ~~for the~~ of position of each of said ~~plurality of wireless~~ network communication devices.

8. (currently amended): A system as recited in claim [[7]] 5, wherein said vector coordinates generation module is configured for calculating a precise ~~distance traveled~~ position of ~~a particular wireless~~ said first network communication device in motion with respect to ~~the other wireless~~ said second and third network communication devices communicating on the wireless network.

9. (currently amended): A system as recited in claim [[7]] 5, wherein said vector coordinates generation module is configured for utilizing ~~utilizes the~~ a coordinate representation of initial points and destination points to determine [[the]] direction of travel of a particular wireless network communication device at a given time within the wireless network.

10. (currently amended): A system as recited in claim 9, wherein said vector coordinates generation module is configured for utilizing [[the]] a coordinate representation of [[the]] initial points and [[the]] destination points to determine [[the]] distance traveled by [[the]] a particular wireless network communication device at a given time.

11. (currently amended): A system as recited in claim [[10]] 5, wherein said vector coordinate generation module is configured for utilizing [[the]] a coordinate

representation of [[the]] initial points and [[the]] destination points to calculate the speed traveled by a [[the]] particular wireless network devices at a given time.

12. (currently amended): A system as recited in claim [[11]] 5, wherein said vector coordinate generation module is configured for generating a relative two-dimensional or three-dimensional coordinate representation of distance vectors from said plurality of network communication devices to determine [[the]] relative two-dimensional or three-dimensional coordinates of each of the plurality of network communication devices ~~in a two-dimensional or three-dimensional plane~~.

13. (currently amended): A system as recited in claim 12, wherein a matrix of distances between each of said plurality of communication devices communicating in the wireless network is utilized to create the two-dimensional or three-dimensional coordinate representation ~~said generating of relative two-dimensional or three-dimensional coordinate representation is configured for utilizing a matrix of distances between each of said plurality of wireless network devices communicating in the wireless network to create the two-dimensional or three-dimensional coordinate representation~~.

14. (currently amended): A system as recited in claim 5, wherein said signal strength ~~motion sensor~~ estimation module is configured for sensing relative movement ~~by a particular wireless network device with respect to the~~ between said first network communication device and said second and third ~~the other wireless~~ network communication devices communicating in the wireless network.

15. (currently amended): A system as recited in claim 5, wherein said signal strength ~~monitoring~~ estimation module is configured for calculating distance changes

between ~~each of the plurality of wireless~~ said network communication devices ~~relative to the other devices~~ communicating in the wireless network.

16. (currently amended): A system as recited in claim 5, wherein said signal strength ~~monitoring~~ estimation module is configured for continuously monitoring said beacon frames ~~frame beacons~~ transmitted by a sending wireless network communication device to a receiving wireless network communication device communicating in said wireless network at a predetermined transmission interval.

17. (currently amended): A system as recited in claim 16, wherein said ~~signal strength~~ vector coordinates generation module is configured for generating a two-dimensional coordinate system in a two-dimensional plane in response to determining any three points and their corresponding distances based on said monitoring of beacon frames.

18. (currently amended): A system as recited in claim 16, wherein said vector coordinates generation module is configured for generating a three-dimensional coordinate system in a three-dimensional ~~plane~~ space in response to determining any four points and their corresponding distances based on said monitoring of beacon frames.

19. (canceled)

20. (currently amended): A method, ~~of detecting proximity between a plurality of wireless network devices~~ comprising:

communicating signal strength information contained within communication frames among a plurality of wireless network devices over a wireless network system;

said plurality of wireless network devices comprising a first wireless network device, a second wireless network device, and a third wireless network device; ~~comprising:~~

determining distance vectors between said first wireless network device within [[a]] the plurality of wireless network devices in response to signal strength information ~~registered from communication of frames between the plurality of wireless network devices~~;

determining a relative two-dimensional or three-dimensional coordinate representation for the position of each of said plurality of wireless network devices based on said distance vectors;

determining a precise distance traveled position of said first ~~a particular~~ wireless network device in motion with respect to said second and third ~~the other~~ wireless network devices communicating on the wireless network in response to said coordinate representation; [[and]]

generating a motion sensor output ~~outputs~~ responsive to the coordinate representation of said plurality of wireless network devices for detecting the motion of ~~any particular one of said plurality of~~ said first wireless network device ~~devices~~ with respect to ~~the other~~ said second and third wireless network devices communicating on the wireless network; and

inputting motion information from said motion sensor output from said first wireless network device into a user interface module to control operations of one or more devices in response to the proximity detection within said plurality of wireless network devices.

21. (currently amended): A method as recited in claim 20, further comprising determining distance changes between said first ~~each of the~~ wireless network device relative to ~~the other~~ said second and third wireless network devices in said wireless network system.

22. (currently amended): A method as recited in claim 20, further comprising ~~utilizing the coordinate representation of initial points and destination points to determine~~ determining [[the]] direction of travel of said first ~~a particular~~ wireless network device at a given time utilizing coordinate representations of initial points and destination points.

23. (currently amended): A method as recited in claim [[22]] 20, further comprising ~~utilizing the coordinate representation of the initial points and the destination points to determine~~ determining the distance traveled by said first ~~the particular~~ wireless network device at a given time utilizing coordinate representations of initial points and destination points ~~to determine~~.

24. (currently amended): A method as recited in claim [[23]] 20, further comprising ~~utilizing the coordinate representation of the initial points and the destination points to determine~~ determining the speed traveled by said first ~~the particular~~ wireless network device at a given time utilizing coordinate representation of initial points and destination points ~~to determine~~.

25. (currently amended): A method as recited in claim 24, further comprising recalibrating coordinate and position information ~~of a new wireless network device~~ when ~~said new~~ a fourth wireless network device enters or leaves the wireless network.

26. (currently amended): A method as recited in claim [[25]] 20, wherein determining the relative two-dimensional or three-dimensional coordinate representation comprises ~~utilizing multiple distance vectors from multiple wireless network devices in the wireless network to calculate~~ calculating the relative two-dimensional or three-dimensional coordinates utilizing multiple distance vectors.

27. (currently amended): A method as recited in claim [[26]] 20, wherein a matrix of distances between each of the plurality of wireless network devices in the wireless network system is utilized in ~~creating~~ determining the two-dimensional or three-dimensional coordinate representation.

28. (currently amended): A method as recited in claim 27, wherein given any three points in said matrix and ~~their~~ corresponding distance between said points, a two-dimensional coordinate system in a two-dimensional plane is created.

29. (currently amended): A method as recited in claim [[28]] 27, wherein given any four points in said matrix and ~~their~~ corresponding distance between said points, a three-dimensional coordinate system in a three-dimensional space is created.

30. (cancelled).

31. (original): A method as recited in claim 20, wherein said determining of the signal strength is performed within a selected proximity range.

32. (original): A method as recited in claim 31, wherein said selected proximity range comprises a range which is predetermined for said wireless network.

33. (new): A system for detecting two or three-dimensional motion of a wireless network device communicating within a wireless network, comprising:

a plurality of wireless network devices configured for wireless communication with one another and for sending signal strength information within communication frames;

wherein the plurality of wireless network devices comprises a first wireless network device, a second wireless network device, and a third wireless network device, which are configured for wireless communication;

a motion monitor module configured for monitoring proximity motion of said first wireless network device relative to said second and third wireless network devices within said plurality of wireless network devices;

a signal strength estimation module configured for calculating signal strength among communicating wireless network devices within said plurality of wireless network devices;

a vector coordinates generation module is configured for generating vectors based on signal strength estimations communicated among said plurality of wireless network devices; and

a proximity motion sensor module configured for detecting the relative motion of said first wireless network device within said plurality of wireless network devices communicating on the wireless network;

wherein said vector coordinates generation module is configured for calculating distance vectors between a plurality of wireless network devices based on signal strength information contained within the communication frames;

wherein said vector coordinates generation module is configured for calculating two-dimensional or three-dimensional coordinate representations for the position of each of said plurality of wireless network devices;

wherein said vector coordinates generation module is configured for determining the direction of travel, distance traveled, and speed of a particular wireless network device at a given time within the wireless network in response to coordinate representation of initial points and destination points;

wherein said vector coordinates generation module is configured for generating a relative two-dimensional or three-dimensional coordinate representation of distance vectors from said plurality of wireless network devices to determine the relative two-

dimensional or three-dimensional coordinates of each of the plurality of wireless network devices; and

wherein said vector coordinates generation module is configured for generating relative two-dimensional or three-dimensional coordinate representations in response to a matrix of distance information determined among each of said plurality of wireless network devices communicating in the wireless network.

34. (new): A method of detecting motion of a wireless network device within a plurality of wireless network devices communicating over a wireless network system, comprising:

determining distance vectors between at least three wireless network devices within a plurality of wireless network devices in response to signal strength information retained in wireless communication frames and communicated among the plurality of wireless network devices;

determining a relative two-dimensional or three-dimensional coordinate representation for the position of each of said plurality of wireless network devices;

determining a precise distance traveled position of a particular wireless network device in motion with respect to the other wireless network devices communicating on the wireless network;

determining the direction, distance and speed traveled by a particular wireless network device at a given time in response to the coordinate representation of initial points and destination points;

generating motion sensor outputs responsive to the coordinate representation of said plurality of wireless network devices for detecting the motion of any particular one of said plurality of said wireless network devices with respect to the other wireless network devices communicating on the wireless network;

wherein the motion sensor outputs are configured as input information into a user interface module to control operations of one or more devices; and

recalibrating coordinate and position information of a new wireless network device when said new wireless network device enters or leaves the wireless network.

35. (new): A method as recited in claim 34, wherein determining the relative two-dimensional or three-dimensional coordinate representation comprises utilizing multiple distance vectors from multiple wireless network devices in the wireless network to calculate the relative two-dimensional or three-dimensional coordinates.

36. (new): A method as recited in claim 35, wherein a matrix of distances between each of the plurality of wireless network devices in the wireless network system is utilized in creating the two-dimensional or three-dimensional coordinate representation.

37. (new): A method as recited in claim 36, wherein a two-dimensional coordinate system in a two-dimensional plane is created given any three points and the corresponding distance between these points.

38. (new): A method as recited in claim 37, wherein a three-dimensional coordinate system in a three-dimensional space is created given any four points and the corresponding distance between these points.

39. (new): A method as recited in claim 34, wherein said motion sensor outputs are configured for communicating position information, motion information, or a combination of position and motion information to a user interface module for controlling operations of one or more devices in response to the proximity detection of the wireless network devices.